Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-85. (Cancelled)

86. (Currently Amended) A continuous carbon fiber comprising single-wall carbon nanotubes in substantially parallel orientation, wherein a substantial portion of the single-wall carbon nanotubes have a homogeneous characteristic selected from the group consisting of lengths, diameters, helicities and combinations thereof and having a composite structure comprising:

a) a first plurality of single-wall carbon nanotubes in a first region having a first homogeneous characteristic, wherein the first homogeneous characteristic is selected from the group consisting of lengths, diameters, helicities and combinations thereof;

b) a second plurality of single-wall carbon nanotubes in a second region having a second homogeneous characteristic, wherein the second homogeneous characteristic is selected from the group consisting of lengths, diameters, helicities and combinations thereof; and

c) wherein

(i) the first plurality of single-wall carbon nanotubes is different from the second plurality of single-wall carbon nanotubes and

(ii) the first homogeneous characteristic is different from the second homogeneous characteristic.

87. (Currently amended) A composite fiber comprising a first plurality of continuous carbon fibers and a second plurality of carbon continuous fibers, wherein:

(a) each of the first plurality of continuous carbon fibers ~~comprise~~ comprises single-wall carbon nanotubes in substantially parallel orientation and is similar to the other continuous carbon fibers in the first plurality of continuous carbon fibers;

(b) each of the second plurality of continuous carbon fibers comprises single-wall carbon nanotubes in substantially parallel orientation and is similar to the other continuous carbon fibers in the second plurality of continuous carbon fibers; and

(c) the continuous carbon fibers of the first plurality of continuous carbon fibers are different from the continuous carbon fibers of the second plurality of carbon fibers.

88. (Previously Presented) The composite fiber of claim 87 wherein the composite fiber is a cable-like structure.

89. (Previously Presented) A composite fiber comprising a plurality of continuous carbon fibers, wherein each of the continuous carbon fibers comprise single-wall carbon nanotubes in substantially parallel orientation, wherein the composite fiber further comprises:

a) a central core comprising metallic single-wall carbon nanotubes; and

b) non-metallic single-wall carbon nanotubes, wherein the non-metallic single-wall carbon nanotubes surround the central core.

90. (Previously Presented) The composite fiber of claim 87 wherein at least some of the single-wall carbon nanotubes in at least a portion of the composite fiber are not parallel.

91-93. (Cancelled)

94 (New) The fiber of claim 86 wherein the first region and the second region are in different segments along the axis of the fiber.

95. (New) The fiber of claim 86 wherein the first region and the second region are simultaneously present in a cross-section of the fiber.